

NATURAL RESOURCE DAMAGE ASSESSMENTS IN URBANIZED AND CHANGING HABITATS – BERRY’S CREEK, NJ

Laska, Mark S.¹; Galloway, Richard W.²; Guest, Daniel T.³

Natural Resource Damage (NRD) penalties follow from Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) or Oil Pollution Act (OPA) actions where a release into the environment has resulted in a loss of ecological services. Habitat Equivalency Analysis (HEA) is a model that is used to estimate the extent to which the PRPs are required to reimburse the public for the injury, payable in the form of cash or equivalent habitat enhancements on site or elsewhere. The HEA analysis is based on the presumption that before the release a baseline level of habitat services existed. The habitat of the New Jersey Meadowlands has changed dramatically in the last 150 years. The remaining habitat in Berry’s Creek, the location for a recent CERCLA action, was formerly freshwater Atlantic white cedar forest, and then it became brackish *Spartina alterniflora* marsh, and is now primarily *Phragmites*-dominated marsh. Wetlands have been drained and filled for navigational and developmental uses diminishing habitat value. We examine the difficulties and complexities in establishing a HEA protocol when baseline habitat values are changing over time and are due to multiple influences, releases and non-release events. In addition, we discuss the strategies and challenges of analyzing NRD in the Berry’s Creek Watershed.

¹ Great Eastern Ecology, Inc., New York, NY

² Honeywell International, Morristown, NJ

³ MACTEC Engineering and Consulting, Inc., Hamilton, NJ